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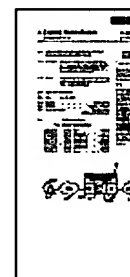# The Delphion Integrated View

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❦ Title:	**US6377927: Voice-optimized database system and method of using**
❦ Derwent Title:	Voice-optimized database system for online shopping, has item data with phonemes and phoneme vector in searchable field of each record [Derwent Record]
❦ Country:	**US** United States of America
❦ Inventor:	**Loghmani, Masoud**; Potomac, MD 20854 **Korangy, Fred F.**; Annapolis, MD 21401
❦ Assignee:	None
❦ Published / Filed:	**2002-04-23** / 1998-10-07
❦ Application Number:	**US1998000167486**
❦ IPC Code:	G10L 21/06;
❦ ECLA Code:	**G06F17/30E**; G10L15/26A;
❦ U.S. Class:	**Current: 704/275; 704/270;** **Original: 704/275; 704/270;**
❦ Field of Search:	704/275,270,256,231,246,257
❦ Priority Number:	1998-10-07 **US1998000167486**
❦ Abstract:	A voice-optimized database system and method of audio vector valuation (AVV) provides means to search a database in response to a spoken query. Audio vectors (AVs) are assigned to phonemes in the names or phrases constituting searchable items in a voice-optimized database and in spoken queries. Multiple AVs can be stored which correspond to different pronunciations of the same searchable items to allow for less precision on the part telephone callers when stating their queries. A distance calculation is performed between the audio vectors of database items and spoken queries to produce search results. Existing databases can be enhanced with AVV. Several alternate samples of a spoken query are generated by analyzing the phonemic string of the spoken query to create similar, alternate phonemic strings. The phonemic string of the spoken query and the alternate phonemic strings are converted to text and used to search the database.
❦ Attorney, Agent or Firm:	**Roylance, Abrams, Berdo & Goodman, L.L.P.** ;
❦ Primary / Assistant Examiners:	**Korzuch, William**; McFadden, Susan

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⛇Parent Case:

CROSS REFERENCE TO RELATED APPLICATION
Related subject matter is disclosed and claimed in co-pending
U.S. Patent Application of Masoud Loghmani et al., filed Oct. 6,
1998 and entitled "Telephony-Enabled Electronic Shopping
System" (attorney's file 34999).

⛇Family: None

⛇First Claim: Show all 13 claims

What is claimed is: 1. A voice-optinized database system for
allowing users to access an electronic shopping cart to purchase
items offered through an online shop using spoken queries
comprising:

- a memory device for storing records for said items; and
- a processing device connected to said memory device and
  operable to retrieve selected ones of said records from said
  database in response to said spoken queries, said memory
  device being configured to store for each of said records at
  least one phoneme vector for parsing of said memory device
  by said processing device in response to said spoken
  queries;
- wherein each of said records has at least one searchable
  field comprising item data that is characterized by phonemes,
  said phonemes being assigned respective values, said
  phonemes having similar pronunciation being assigned
  similar values, each said phoneme vector comprising said
  values corresponding to said phonemes in said at least one
  searchable field.

**⛇Background /
Summary:**

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References:**

Show 1 U.S. patent(s) that reference this one

⛇U.S. References: **Go to Result Set:** All U.S. references | Forward references (1) | Backward referenc
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PDF	Patent	Pub.Date	Inventor	Assignee	Title
📄	US5291583	1994-03	Bapat	Racal-Datacom, Inc.	Automatic storage of pers objects in a relational sch
📄	US5715314	1998-02	Payne et al.	Open Market, Inc.	Network sales system
📄	US5745681	1998-04	Levine et al.	Sun Microsystems, Inc.	Stateless shopping cart fc
📄	US5745754	1998-04	Lagarde et al.	International Business Machines Corporation	Sub-agent for fulfilling rec web browser using an int and providing a report
📄	US5761280	1998-06	Noonen et al.	8×8, Inc.	Telephone web browser a and method

🅰	US5799278	1998-08	Cobbett et al.	International Business Machines Corporation	Speech recognition syste using a hidden markov m to recognize a number of trained to recognize a gre of phonetically dissimilar
🅰	US5802526	1998-09	Fawcett et al.	Microsoft Corporation	System and method for g displaying and navigating interactive voice respons
🅰	US5806030	1998-09	Junqua		Low complexity, high acc clustering method for spe recognizer
🅰	US5806033	1998-09	Lyberg	Telia AB	Syllable duration and pitc determine accents and st speech recognition
🅰	US5809462	1998-09	Nussbaum	Ericsson Messaging Systems Inc.	Method and apparatus fo and training a neural netw phoneme recognition
🅰	US5991712	1999-11	Martin	Sun Microsystems, Inc.	Method, apparatus, and p automatic generation of le for speech recognition sy

❓Foreign References: None